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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/695,446	10/29/2003	Hitoshi Matsumoto	Q78262	4562
23373	7590	08/22/2005	EXAMINER	
SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			DICT, RACHEL S	
			ART UNIT	PAPER NUMBER
			2853	

DATE MAILED: 08/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/695,446

Applicant(s)

MATSUMOTO ET AL.

Examiner

Rachel Dicht

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2005.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-9, 11-15, 17 and 18 is/are rejected.
- 7) ☒ Claim(s) 4, 10, 16 and 19 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 21 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 3, 5, 6, 7, 8, 9, 11, 12, 13, 17, and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by Wilson et al. (US Pat. No. 5,539,436).

In regard to:

Claim 1:

Wilson et al. teaches a liquid ejection apparatus comprising a supply unit arranging part (12, Fig. 1c) for arranging a liquid supply unit (22, Fig. 1c), and a carriage part (18, Fig. 1c) for accommodating a liquid ejection head and moving along a vicinity of the supply unit arranging part, wherein a carriage side communication device (14, Fig. 3b) for communicating a supply unit communication portion (Fig. 1b) provided in the liquid supply unit is formed in a portion of the carriage part corresponding to the supply unit arranging part (refer to column 3 lines 66-67 and column 4 lines 13-15 and lines 54-56).

Claim 2:

Wilson et al. teaches a liquid ejection apparatus wherein the supply unit arranging part (12, Fig. 1c) is provided with a through window portion (spacing between walls 44, Fig. 4) corresponding to the supply unit communication portion, and the carriage side communication device (14, Fig. 3b) is formed in a portion corresponding to the through window portion of the carriage part (Fig. 4) for moving in the vicinity of the through window portion (refer to column 4 lines 56-57 and column 5 lines 21-24).

Claim 3:

Wilson et al. teaches a liquid ejection apparatus wherein a plurality of supply unit housing portions (16, Fig. 1c) for accommodating a plurality of liquid supply units (22, Fig. 1c) are arrayed in the supply unit arranging part in a moving direction of the carriage part (Fig. 1c), and the through window portion (Fig. 4) is formed on the carriage side of each of the supply unit housing portions (refer to Fig. 3a).

Claim 5:

Wilson et al. teaches a liquid ejection apparatus wherein a housing portion side engaging positioning portion (44, Fig. 4) is formed in the supply unit housing portion corresponding to a supply unit side engaging positioning portion provided (Fig. 1b) in the liquid supply unit, a mounting portion (16, Fig. 4) for mounting the

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liquid supply unit (22, Fig. 1c) is formed in the supply unit housing portion, and a pressing member (28, Fig. 2a) for pressing an upper surface of the liquid supply unit to be mounted on the mounting portion against the mounting surface side is formed (refer to column 4 lines 17-22).

Claim 6:

Wilson et al. teaches a liquid ejection apparatus where the through window portion is capable of penetrating there through a convex portion on which the supply unit communication portion is provided (refer to column 5 lines 20-24).

Claim 7:

Wilson et al. teaches a liquid ejection apparatus wherein the carriage part (18, Fig. 1c) moves with respect to the supply unit arranging part (12, Fig. 1c) during an ejection operation when the liquid ejection head ejects liquid (refer to column 3 lines 66-67 to column 4 line 1).

Claim 8:

Wilson et al. teaches the liquid ejection apparatus wherein the carriage side communication device (14, Fig. 3b) moves with respect to the supply unit communication portion (Fig. 1b) during the ejection operation (refer to column 3 lines 66-67 and column 4 lines 13-15 and lines 54-56).

Claim 9:

Wilson et al. teaches a liquid ejection apparatus comprising a housing that houses a first liquid container, wherein the first liquid container comprises a first communication circuit (refer to column 4 lines 60-65); and a carriage that moves relative to the housing during a liquid ejection operation and that contains a second communication circuit (14, Fig. 5b), wherein the second communication circuit communicates with the first communication circuit when the carriage moves relative to the housing during the liquid ejection operation (refer to column 5 lines 20-24).

Claim 11:

Wilson et al. teaches a liquid ejection apparatus wherein the second communication circuit (14, Fig. 5b) is located at a portion of the carriage (18, Fig. 1c) that is adjacent to the housing (12, Fig. 3a).

Claim 12:

Wilson et al. teaches a liquid apparatus wherein the housing houses a second liquid container (second of the four containers, 22, Fig. 1c), wherein the second liquid container comprises a third communication circuit (refer to column 4 lines 60-65); and wherein the second communication circuit communicates with the first communication circuit and the third communication circuit when the

carriage moves relative to the housing during the liquid ejection operation (refer to column 5 lines 20-24).

Claim 13:

Wilson et al. teaches a liquid apparatus wherein the first liquid container and the second liquid container (22, Fig. 1a) are arranged in a direction in which the carriage moves relative to the housing during the liquid ejection operation (Fig. 1a) (direction of motion parallel to bar 15, Fig. 1) .

Claim 17:

Wilson et al. teaches a liquid ejection apparatus, comprising a first liquid container that comprises a first communication circuit (22, Fig. 1); a second liquid container that comprises a second communication circuit (22, Fig. 1) (refer to column 4 lines 60-65); and a carriage that moves relative to the first liquid container and the second liquid container during a liquid ejection operation (movement along bar 15, Fig. 1) (refer to column 3 lines 66-67 to column 4 line 1) and that contains a third communication circuit (14, Fig. 3a), wherein the third communication circuit communicates with the first communication circuit and the second communication circuit when the carriage moves relative to the first liquid container and the second liquid container during the liquid ejection operation (refer to column 5 lines 30-35).

Claim 19:

Wilson et al. teaches a liquid ejection apparatus further comprising a housing (12, Fig. 1c) that houses the first liquid container and the second liquid container.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilson et al. (US Pat. No. 5,539,436) in view of Murata et al. (US Pat. No. 5,428,378).

In regard to:

Claim 14:

The device of Wilson et al. DIFFERS from claim 14 in that it fails to teach a liquid apparatus wherein the housing comprises a window, wherein the first liquid container comprises a protrusion that protrudes into the window, and wherein the protrusion comprises the first communication circuit.

However, Murata et al. teaches a liquid apparatus wherein the housing comprises a window (spaces in rear wall 17, Fig. 1), wherein the first liquid

container (K, Fig. 1) comprises a protrusion (Portion covered by shutter S, Fig. 1) that protrudes into the window, and wherein the protrusion comprises the first communication circuit (53, Fig. 3) (refer to column 14, lines 25-28).

Claim 15:

Wilson et al. teaches a liquid apparatus wherein the second communication circuit of the carriage moves in a vicinity of the window when the carriage moves relative to the housing during the liquid ejection operation.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Wilson et al. to include a protrusion on a liquid container that protrudes through a window as taught by Murata et al. for the purpose of ensuring good electrical contact to the connection board when carriage is in motion.

Allowable Subject Matter

5. Claims 4, 10, 16, and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. The following is a statement of reasons for the indication of allowable subject matter: The primary reason for the allowance of claims 4, 10, 16, and 18 is the inclusion of the limitation of

Claim 4:

The through window portion formed in the supply unit housing portion is provided with a shutter portion to be brought into an opening state when the liquid supply unit is arranged in the supply unit housing portion and a shutter side communication device is provided in the shutter portion. It is this limitation found in each of the claims, as it is claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

Claim 10:

The liquid ejection apparatus wherein the second communication circuit communicates with the first communication circuit via wireless.

Claim 16:

The liquid ejection apparatus wherein the window comprises a shutter that opens with the housing houses the first liquid container, and wherein the shutter comprises a third communication circuit.

Claim 18:

The liquid ejection apparatus wherein the third communication circuit communicates with the first communication circuit and the second communication circuit via wireless communication.

It is these limitations found in each of the claims, as they are claimed in the combination, that has not been found, taught or suggested by the prior art of record which makes these claims allowable over the prior art.

Response to Arguments

7. Applicant's arguments filed 21 July 2005 have been fully considered but they are not persuasive. The applicant argues that Fig. 1c of Wilson et al. clearly shows, that the housing 12, is part of the carriage assembly 18, and thus, the alleged carriage part 18 does not move along a vicinity of the alleged supply unit arranging part 12. The examiner disagrees. Wilson et al. shows that the housing part 12 is part of carriage assembly 18. As assembly 18 moves, the arranging part 12 must move with the assembly (refer to column3 lines 66-67 to column 4 line 1).

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel Dicht whose telephone number is 571-272-8544. The examiner can normally be reached on 7:00 am - 3:30 pm Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on 571-272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RSD



August 16, 2005



8/18/05
MANISH S. SHAH
PRIMARY EXAMINER